IN THE CLAIMS

This listing of claims replaces all prior versions, and listings, in this application.

Claims 1-11 (canceled)

12. (currently amended) A method of ~~providing~~ treating cell stress or injury which is comprised of administering an effective amount of mutant activated or zymogen human protein C (hPC) with reduced anticoagulant activity, wherein the mutant activated or zymogen hPC is comprised of at least one mutation KKK191-193AAA numbered as in the amino acid sequence in U.S. Patent 4,775,624 for zymogen hPC, ~~at least one prodrug, or at least one variant thereof~~ to a human subject such that at least one effect of stress or injury is improved in one or more cell types of the subject.

Claim 13 (canceled)

14. (previously presented) The method of Claim 12, wherein the one or more cell types are in the subject's brain.

15. (previously presented) The method of Claim 12, wherein the subject is in need of treatment because of brain radiation injury.

16. (previously presented) The method of Claim 12, wherein the cell stress or injury is caused by at least one selected from the group consisting of reduced hemoperfusion, hypoxia, ischemia, ischemic stroke, radiation, oxidants, reperfusion injury, and trauma.

17. (currently amended) The method of Claim 12, wherein the effective amount is from 0.02 milligrams to 0.04 milligrams of the mutant activated or zymogen hPC ~~protein C~~ per kilogram of body weight of the subject~~, or an equivalent amount of the prodrug or the functional variant~~.

18. (currently amended) The method of Claim 12, wherein the effective amount is at most 0.02 milligrams of the mutant activated or zymogen hPC ~~protein C~~ per kilogram of body weight of the subject~~, or an equivalent amount of the prodrug or the functional variant~~.

19. (currently amended) The method of Claim 12, wherein the effective amount of the mutant activated or zymogen hPC ~~protein C, the prodrug, or the functional variant~~ does not provide a therapeutic effect in the subject as an anticoagulant, profibrinolytic, or antithrombotic agent.

20. (currently amended) The method of Claim 12, wherein the mutant activated or zymogen hPC ~~at least one functional variant~~ is further comprised of at least one mutation ~~selected from the group consisting of activated protein C (APC) mutants KKK191-193AAA and~~ RR229/230AA.

21. (withdrawn-currently amended) A method of reducing p53 signaling which is comprised of administering ~~Use of~~ activated protein C, at least one prodrug, or at least one functional variant thereof to a subject in an amount effective to reduce p53 signaling in at least one cell type of a subject.

22. (withdrawn-currently amended) The method ~~use~~ of Claim 21, wherein NF-κB signaling is not significantly affected.

Claims 23-26 (canceled)

27. (withdrawn-currently amended) A method of providing neuroprotection which is comprised of administering ~~Use of~~ an agonist of protease activated receptor-1 (PAR-1) and/or protease activated receptor-3 (PAR-3) and/or endothelial protein C receptor (EPCR) to a subject in an effective amount to provide neuroprotection in a subject in need of treatment.

28. (withdrawn-currently amended) The method ~~use~~ of Claim 27, wherein the agonist is a TFLLRNPNDK (SEQ ID NO:1) peptide.

29. (previously presented) The method of Claim 12, wherein the effective amount results in at least reduced or insignificant systemic anticoagulation when administered to the subject.

30. (previously presented) The method of Claim 12, wherein the subject has a neurodegenerative disease.

31. (previously presented) The method of Claim 30, wherein the neurodegenerative disease is selected from the group consisting of Alzheimer's disease, Down syndrome, Huntington's disease, and Parkinson's disease.

32. (previously presented) The method of Claim 12, wherein the effective amount is administered to the subject in less than 72 hours.

33. (new) A method of treating brain radiation injury which is comprised of administering an effective amount of activated human protein C (hPC), zymogen hPC, or mutant activated or zymogen hPC with reduced anticoagulant activity to a human subject such that at least one effect of brain radiation injury is improved in one or more cell types of the subject's brain.

34. (new) The method of Claim 33, wherein the effective amount is from 0.02 milligrams to 0.04 milligrams of the activated hPC; zymogen hPC, or mutant activated or zymogen hPC per kilogram of body weight of the subject.

35. (new) The method of Claim 33, wherein the effective amount is at most 0.02 milligrams of the activated hPC, zymogen hPC, or mutant activated or zymogen hPC per kilogram of body weight of the subject.

36. (new) The method of Claim 33, wherein the effective amount of the activated hPC, zymogen hPC, or mutant activated or zymogen hPC does not provide a therapeutic effect in the subject as an anticoagulant, profibrinolytic, or antithrombotic agent.

37. (new) The method of Claim 33, wherein the activated hPC, zymogen hPC, or mutant activated or zymogen hPC is comprised of at least one mutation selected from the group consisting of KKK191-193AAA and RR229/230AA numbered as in the amino acid sequence in U.S. Patent 4,775,624 for zymogen hPC.

38. (new) The method of Claim 33, wherein the effective amount results in at least reduced or insignificant systemic anticoagulation when administered to the subject.

39. (new) The method of Claim 33, wherein the effective amount is administered to the subject in less than 72 hours.

40. (new) A method of treating cell stress or injury which is comprised of administering to a human subject at most 0.02 milligrams of activated human protein C (hPC), zymogen hPC, or mutant activated or zymogen hPC with reduced anticoagulant activity per kilogram of body weight of the subject such that at least one effect of stress or injury is improved in one or more cell types of the subject.

41. (new) The method of Claim 40, wherein the one or more cell types are in the subject's brain.

42. (new) The method of Claim 40, wherein the subject is in need of treatment because of brain radiation injury.

43. (new) The method of Claim 40, wherein the cell stress or injury is caused by at least one selected from the group consisting of reduced hemoperfusion, hypoxia, ischemia, ischemic stroke, radiation, oxidants, reperfusion injury, and trauma.

44. (new) The method of Claim 40, wherein the subject has a neurodegenerative disease.

45. (new) The method of Claim 44, wherein the neurodegenerative disease is selected from the group consisting of Alzheimer's disease, Down syndrome, Huntington's disease, and Parkinson's disease.

46. (new) The method of Claim 40, wherein the effective amount of the activated hPC, zymogen hPC, or mutant activated or zymogen hPC does not provide a therapeutic effect in the subject as an anticoagulant, profibrinolytic, or antithrombotic agent.

47. (new) The method of Claim 40, wherein the activated hPC, zymogen hPC, or mutant activated or zymogen hPC is comprised of at least one mutation selected from the group consisting of KKK191-193AAA and RR229/230AA numbered as in the amino acid sequence in U.S. Patent 4,775,624 for zymogen hPC.

48. (new) The method of Claim 40, wherein the effective amount results in at least reduced or insignificant systemic anticoagulation when administered to the subject.

49. (new) The method of Claim 40, wherein the at most 0.02 milligrams is administered to the subject in less than 72 hours.